

Docket No. 740756-945

IN RE UNITED STATES PATENT AND TRADEMARK OFFICE

In re U.S. Patent application:)
Hisato SHINOHARA et al.)
Application Serial No. 08/169,127) Art Unit: 1762
Filed: December 20, 1993) Examiner: Marianne L. Padgett
For: METHOD AND SYSTEM OF)
LASER PROCESSING)

RESPONSE TO ADVISORY ACTION MAILED

AFTER FILING OF APPEAL BRIEF

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Sir:

In response to the Advisory Action mailed September 7, 2005, please consider the following remarks in connection with this instant application.

REMARKS


The Examiner's Advisory Action mailed September 7, 2005 have been received and its contents reviewed. Applicants would like to thank the Examiner for the consideration given to the above-identified application.

In response to the Notice of Non-compliant Appeal Brief mailed on even date with the Examiner's Advisory Action noted above, Applicants submit simultaneously herewith a corrected Appeal Brief in accordance to 37 C.F.R. §41.37, which includes correction of all defects outlined in the Notice of Non-compliant Appeal Brief.

With respect to the Advisory Action, which detailed an obviousness-type double patenting rejection of claims 61-96, 101-109 and 131 over Shinohara et al. (U.S. Patent No. 6,261,856 – hereafter Shinohara '856), Applicants acknowledge with appreciation the Examiner's attempt to reduce issues on appeal. Applicants respectfully request that the Examiner officially make the obviousness-type double patenting officially of record pursuant to 37 C.F.R. §41.31 through §41.52 and MPEP §1206 through 1209. Such action will permit Applicants to respond to the new rejection contained in the requested Examiner's Answer in accordance to MPEP 1208.03.

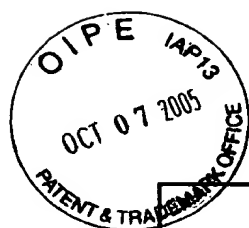
If the Examiner had any issues or concerns which could be resolved by a conference, she is invited to contact the undersigned to arrange such a conference.

Respectfully submitted,



Jeffrey L. Costellia
Registration No. 35,483

NIXON PEABODY LLP
Suite 900
401 9th Street, N.W.
Washington, D.C. 20004-2128
(202) 585-8000



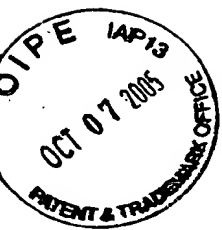
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TRANSMITTAL FORM <i>(to be used for all correspondence after initial filing)</i>	Application Number	08/169,127
	Filing Date	December 20, 2003
	First Named Inventor	Hisato SHINOHARA et al.
	Group Art Unit	1762
	Examiner Name	Marianne Padgett
Total Number of Pages in This Submission	Attorney Docket Number	740756-945

ENCLOSURES (check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Supplemental Amendment / Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Declaration and Power of Attorney <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input checked="" type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Application Data Sheet <input type="checkbox"/> Request for Corrected Filing Receipt with Enclosures <input type="checkbox"/> A self-addressed prepaid postcard for acknowledging receipt <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): Response to Advisory Action Mailed After Filing of Appeal Brief
Remarks		<input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees required or credit any overpayments to Deposit Account No. 19-2380 for the above identified docket number.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	Jeffrey L. Costellia - Reg. No. 35,483 Nixon Peabody LLP 401 9 th Street, N.W. Suite 900 Washington, D.C. 20004-2178
Signature	
Date	October 7, 2005

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PATENT
Attorney Docket No.: 740756-000945

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:)
SHINOHARA et al.) Group Art Unit: 1762
Application No. 08/169,127)
Filed: December 20, 1993) Examiner: Marianne Padgett
For: METHOD AND SYSTEM OF LASER) Confirmation No.: 2677
PROCESSING)
)

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APPEAL BRIEF

The following is presented in furtherance of the appeal proceedings instituted by the Notice of Appeal filed November 19, 2004, in response to the Final Office Action mailed May 19, 2004 and Advisory Action mailed May 25, 2005 and the Notification of Non-Compliant mailed September 7, 2005 in connection with the above-identified application.

In accordance with the provisions of 35 U.S.C. §134 and 37 C.F.R. §41.37, Appellants submit this appeal brief in triplicate concurrently with a Second Supplemental Amendment to cancel a number of claims to overcome the pending rejections and to reduce the number of issue on appeal.

The Commissioner is hereby authorized to charge the requisite fee of \$330 to Deposit Account No 19-2380 (740756-945). If this payment is in any way deficient, or if any other fees are needed to perfect the filing of this brief, or to prosecute this appeal, the Commissioner is hereby authorized to charge Deposit Account No 19-2380 (740756-945) for the balance of any such fees due.

Real Party in Interest

The real party in interest is the assignee, Semiconductor Energy Laboratory Co., Ltd, of Kanagawa-ken, Japan.

Related Appeals and Interferences

There are no related appeals or interferences.

Status of Claims

As indicated in the Advisory Action mailed May 25, 2005, claims 1-4, 6-9, 18-22, 110-111 and 132-135 have been finally rejected, claims 11-13, 17, 20-60, 63, 65, 68, 70, 73, 75, 78, 80, 83, 85, 88, 90, 97-100, 112-130 and 136-139 have been withdrawn, claims 61-62, 64, 66-67, 69, 71-72, 74, 76-77, 79, 81-82, 84, 86-87, 89, 91-96, 101-109 and 131 are found potentially allowable. By a Supplemental Amendment filed simultaneously herewith, rejected claims 1-4, 6-9, 18-22, 110-111 and 132-135 and withdrawn claims 11-13, 17, 20-60, 97-100, 112-130 and 136-139 are canceled. As a result, for the purpose of this appeal, only potentially allowed claims 61-62, 64, 66-67, 69, 71-72, 74, 76-77, 79, 81-82, 84, 86-87, 89, 91-96, 101-109 and 131 remain pending in the instant application, as well as withdrawn claims 63, 65, 68, 70, 73, 78, 80, 83, 85, 88 and 90.

Status of Amendments

The Amendment filed April 28, 2005 has been entered and, based on the Advisory Action mailed May 25, 2005, the Examiner has provided that this reply has overcome the formality rejection under §112 (first paragraph) of claims 61-96 and 101-109, the rejection under §112 (second paragraph) of claims 20-22, 134-135, the prior art rejection under §103(a) based on Hongo et al. (JP 57-094482A), thus, reducing the remaining issues on Appeal provided in detail below.

Standing rejections include the judicially created doctrine of obviousness-type double patenting rejection of claims 1-4, 6-9, 18-22, 110-111 and 132-135 over U.S. Patent Nos. 4,786,358 (Yamazaki et al.) in view of Hongo et al. (JP 57-94482) and Nishimura et al., and the judicially created doctrine of obviousness-type double patenting of claims 1-4, 6-9, 18-22, 110-111 and 132-135 over U.S. Patent No. 6,149,988 (Shinohara et al.), and the §112 (second paragraph) of claim 19.

A Supplemental Amendment is filed concurrently with this Appeal Brief to render moot these remaining pending rejections, thereby eliminating all pending issues on appeal.

Summary of Claimed Subject Matter

Independent claim 61 relates to a method of manufacturing an active matrix display device having an active matrix circuit and a driving circuit, said method includes the steps of forming an ion blocking film over a substrate; forming a semiconductor layer comprising amorphous silicon over said ion blocking film to a thickness of 200 - 1500 Å; providing a first laser beam having a first cross section; expanding said first cross section of the first pulsed laser beam in a first direction; condensing the expanded laser beam in a second direction orthogonal to said first direction; irradiating the semiconductor layer with the condensed laser beam having a second cross section at a surface of the semiconductor layer wherein a length of said second cross section in said first direction is longer than that of said first cross section and a width of said second cross section in said second direction is smaller than that of said first cross section; moving said substrate along a third direction orthogonal to said first direction so that the semiconductor layer is scanned with the condensed laser beam and whereby the semiconductor layer is crystallized; and forming a plurality of thin film transistors using the crystallized semiconductor layer as at least channel regions of the thin film transistors, wherein both of the active matrix circuit and said driving circuit include said thin film transistors.

Support for claim 61 can be found at least in, e.g., Fig. 1, page 12, lines 22-23 of the present specification, the descriptions of Figs. 7A-7D and Figs. 2B, 2C and 2D.

Independent claim 66 a method of manufacturing an active matrix display device having an active matrix circuit and a driving circuit, the method includes the steps of forming an ion blocking film over a substrate to a thickness of 1000 - 4000 Å; forming a semiconductor layer comprising amorphous silicon over said ion blocking film to a thickness of 200 - 1500 Å; providing a first laser beam having a first cross section; expanding said first cross section of the first pulsed laser beam in a first direction; condensing the expanded laser beam in a second direction orthogonal to said first direction; irradiating the semiconductor layer with the condensed laser beam having a second cross section at a surface of the semiconductor layer wherein a length of said second cross section in said first direction is longer than that of said first cross section and a width of said second cross section in said second direction is smaller than that of said first cross section; moving said substrate along a third direction orthogonal to said first direction so that the semiconductor layer is scanned

with the condensed laser beam and whereby the semiconductor layer is crystallized; and forming a plurality of thin film transistors using the crystallized semiconductor layer as at least channel regions of the thin film transistors, wherein both of the active matrix circuit and said driving circuit include said thin film transistors.

Support for claim 66 can be found at least in, e.g., Fig. 1, page 12, lines 22-23 of the present specification, the descriptions of Figs. 7A-7D and Figs. 2B, 2C and 2D.

Independent claim 71 is directed to a method of manufacturing an active matrix display device having an active matrix circuit and a driving circuit, wherein the method includes the steps of forming an ion blocking film over a substrate; forming a semiconductor layer comprising amorphous silicon over said ion blocking film to a thickness of 200 - 1500 Å; providing a first laser beam having a first cross section wherein said laser beam is a pulsed laser beam having a wavelength of not longer than 400 nm; expanding said first cross section of the first pulsed laser beam in a first direction; condensing the expanded laser beam in a second direction orthogonal to said first direction; irradiating the semiconductor layer with the condensed laser beam having a second cross section at a surface of the semiconductor layer wherein a length of said second cross section in said first direction is longer than that of said first cross section and a width of said second cross section in said second direction is smaller than that of said first cross section; moving said substrate along a third direction orthogonal to said first direction so that the semiconductor layer is scanned with the condensed laser beam and whereby the semiconductor layer is crystallized; and forming a plurality of thin film transistors using the crystallized semiconductor layer as at least channel regions of the thin film transistors, wherein both of the active matrix circuit and said driving circuit include said thin film transistors.

Support for claim 71 can be found at least in, e.g., Fig. 1, page 12, lines 22-23 of the present specification, the descriptions of Figs. 7A-7D and Figs. 2B, 2C and 2D.

Independent claim 76 is directed to a method of manufacturing an active matrix display device having an active matrix circuit and a driving circuit, wherein the method includes the steps of forming an ion blocking film over a glass substrate containing alkali ions; forming a semiconductor layer comprising amorphous silicon over said ion blocking film to a thickness of 200 - 1500 Å; providing a first laser beam having a first cross section; expanding said first cross section of the first pulsed laser beam in a first direction; condensing the expanded laser beam in a second direction orthogonal to said first direction; irradiating the semiconductor layer with the condensed laser beam having a second cross section at a surface of the semiconductor layer wherein a length of said second cross section in said first

direction is longer than that of said first cross section and a width of said second cross section in said second direction is smaller than that of said first cross section; moving said substrate along a third direction orthogonal to said first direction so that the semiconductor layer is scanned with the condensed laser beam and whereby the semiconductor layer is crystallized; and forming a plurality of thin film transistors using the crystallized semiconductor layer as at least channel regions of the thin film transistors, wherein both of the active matrix circuit and said driving circuit include said thin film transistors.

Support for claim 76 can be found at least in, e.g., Fig. 1, page 12, lines 22-23 of the present specification, the descriptions of Figs. 7A-7D and Figs. 2B, 2C and 2D.

Independent claim 81 is directed to a method of manufacturing an active matrix display device having an active matrix circuit and a driving circuit, wherein the method includes the steps of forming an ion blocking film over a glass substrate containing alkali ions to a thickness of 1000 - 4000 Å; forming a semiconductor layer comprising amorphous silicon over said ion blocking film to a thickness of 200 - 1500 Å; providing a first laser beam having a first cross section; expanding said first cross section of the first pulsed laser beam in a first direction; condensing the expanded laser beam in a second direction orthogonal to said first direction; irradiating the semiconductor layer with the condensed laser beam having a second cross section at a surface of the semiconductor layer wherein a length of said second cross section in said first direction is longer than that of said first cross section and a width of said second cross section in said second direction is smaller than that of said first cross section; moving said substrate along a third direction orthogonal to said first direction so that the semiconductor layer is scanned with the condensed laser beam and whereby the semiconductor layer is crystallized; and forming a plurality of thin film transistors using the crystallized semiconductor layer as at least channel regions of the thin film transistors, wherein both of the active matrix circuit and said driving circuit include said thin film transistors.

Support for claim 81 can be found at least in, e.g., Fig. 1, page 12, lines 22-23 of the present specification, the descriptions of Figs. 7A-7D and Figs. 2B, 2C and 2D.

Independent claim 86 is directed to a method of manufacturing an active matrix display device having an active matrix circuit and a driving circuit, wherein the method includes the steps of forming an ion blocking film over a glass substrate containing alkali ions; forming a semiconductor layer comprising amorphous silicon over said ion blocking film to a thickness of 200 - 1500 Å; providing a first laser beam having a first cross section wherein said laser beam is a pulsed laser beam having a wavelength of not longer than 400

nm; expanding said first cross section of the first pulsed laser beam in a first direction; condensing the expanded laser beam in a second direction orthogonal to said first direction; irradiating the semiconductor layer with the condensed laser beam having a second cross section at a surface of the semiconductor layer wherein a length of said second cross section in said first direction is longer than that of said first cross section and a width of said second cross section in said second direction is smaller than that of said first cross section; moving said substrate along a third direction orthogonal to said first direction so that the semiconductor layer is scanned with the condensed laser beam and whereby the semiconductor layer is crystallized; and forming a plurality of thin film transistors using the crystallized semiconductor layer as at least channel regions of the thin film transistors, wherein both of the active matrix circuit and said driving circuit include said thin film transistors.

Support for claim 86 can be found at least in, e.g., Fig. 1, page 12, lines 22-23 of the present specification, the descriptions of Figs. 7A-7D and Figs. 2B, 2C and 2D.

Grounds of rejection to be reviewed on appeal

Claim 19 stands rejected under 35 U.S.C. 112, second paragraph, for being indefinite.

Claims 1-4, 6-9, 18-22, 110-111, and 132-135 stand rejected under the judicially created doctrine of obviousness-type double patenting over U.S. Patent No. 4,786,358 in view of Hongo (JP 57-94482) and Nishimura et al.

Claims 1-4, 6-9, 18-22, 110-111, and 132-135 stand rejected under the judicially created doctrine of obviousness-type double patenting over U.S. Patent No. 6,149,988.

Arguments:

Appellant has canceled claim 19 in the Supplemental Amendment filed with the original Appeal Brief filed June 20, 2005, thus rendering this remaining aspect of the rejection moot.

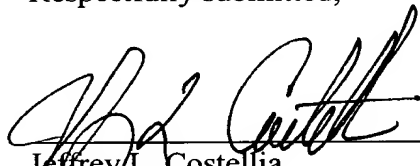
Appellants have canceled claims 1-4, 6-9, 18-22, 110-111, and 132-135 in the Supplemental Amendment noted above rendering this rejection moot.

All prior rejections of claims 61-62, 64, 66-67, 69, 71-72, 74, 76-77, 79, 81-82, 84, 86-87, 89, 91-96, 101-109 and 131 have been overcome as indicated in the Advisory Action mailed May 25, 2005. Consequently, there are no longer any further issues upon which an appeal is necessary based on the rejections of record. As a result, the instant application should now be in a condition for allowance.

Further, withdrawn claims 63, 65, 68, 70, 73, 75, 78, 80, 83, 85, 88 and 90 depend from claims 61, 66, 71, 76, 81, and 86, respectively, and recite that the ion blocking film comprises silicon oxide or non-doped silicon oxide. These claims should be rejoined with the allowed claims since they have the same priority date as the allowed base claims, namely, December 20, 2003, as provided by Appellants in the response filed November 1, 2002.

In view of the canceling of claims 1-4, 6-9, 18-22, 110-111 and 132-135 to render the double patenting rejections moot, and in view of the canceling of withdrawn claims 11-13, 17, 20-60, 97-100, 112-130 and 136-139, all pending rejections have been overcome. The Board is respectfully requested to reverse the Examiner's refusal to pass this application to issuance.

Respectfully submitted,



Jeffrey L. Costellia
Registration No. 35,483

NIXON PEABODY LLP
401 9th Street, N.W.
Suite 900
Washington, DC 20004-2128
Telephone: (202) 585-8000
Facsimile: (202) 585-8080

CLAIMS APPENDIX

Claims Involved in the Appeal

1.-60. (Cancelled)

61. (Previously presented) A method of manufacturing an active matrix display device having an active matrix circuit and a driving circuit, said method comprising:

forming an ion blocking film over a substrate;

forming a semiconductor layer comprising amorphous silicon over said ion blocking film to a thickness of 200 - 1500 Å;

providing a first laser beam having a first cross section;

expanding said first cross section of the first pulsed laser beam in a first direction;

condensing the expanded laser beam in a second direction orthogonal to said first direction;

irradiating the semiconductor layer with the condensed laser beam having a second cross section at a surface of the semiconductor layer wherein a length of said second cross section in said first direction is longer than that of said first cross section and a width of said second cross section in said second direction is smaller than that of said first cross section;

moving said substrate along a third direction orthogonal to said first direction so that the semiconductor layer is scanned with the condensed laser beam and whereby the semiconductor layer is crystallized; and

forming a plurality of thin film transistors using the crystallized semiconductor layer as at least channel regions of the thin film transistors,

wherein both of the active matrix circuit and said driving circuit include said thin film transistors.

62. (Previously presented) The method according to claim 61 wherein said laser beam is an excimer laser beam.

63. (Withdrawn) The method according to claim 61 wherein said ion blocking film comprises silicon oxide.

64. (Previously presented) The method according to claim 61 wherein said blocking film comprises silicon nitride.

65. (Withdrawn) The method according to claim 61 wherein said ion blocking film comprises non-doped silicon oxide.

66. (Previously presented) A method of manufacturing an active matrix display device having an active matrix circuit and a driving circuit, said method comprising:
forming an ion blocking film over a substrate to a thickness of 1000 - 4000 Å;
forming a semiconductor layer comprising amorphous silicon over said ion blocking film to a thickness of 200 - 1500 Å;
providing a first laser beam having a first cross section;
expanding said first cross section of the first pulsed laser beam in a first direction;
condensing the expanded laser beam in a second direction orthogonal to said first direction;
irradiating the semiconductor layer with the condensed laser beam having a second cross section at a surface of the semiconductor layer wherein a length of said second cross section in said first direction is longer than that of said first cross section and a width of said second cross section in said second direction is smaller than that of said first cross section;
moving said substrate along a third direction orthogonal to said first direction so that the semiconductor layer is scanned with the condensed laser beam and whereby the semiconductor layer is crystallized; and
forming a plurality of thin film transistors using the crystallized semiconductor layer as at least channel regions of the thin film transistors,
wherein both of the active matrix circuit and said driving circuit include said thin film transistors.

67. (Previously presented) The method according to claim 66 wherein said laser beam is an excimer laser beam.

68. (Withdrawn) The method according to claim 66 wherein said ion blocking film comprises silicon oxide.

69. (Previously presented) The method according to claim 66 wherein said blocking film comprises silicon nitride.

70. (Withdrawn) The method according to claim 66 wherein said ion blocking film comprises non-doped silicon oxide.

71. (Previously presented) A method of manufacturing an active matrix display device having an active matrix circuit and a driving circuit, said method comprising:

- forming an ion blocking film over a substrate;
- forming a semiconductor layer comprising amorphous silicon over said ion blocking film to a thickness of 200 - 1500 Å;
- providing a first laser beam having a first cross section wherein said laser beam is a pulsed laser beam having a wavelength of not longer than 400 nm;
- expanding said first cross section of the first pulsed laser beam in a first direction;
- condensing the expanded laser beam in a second direction orthogonal to said first direction;
- irradiating the semiconductor layer with the condensed laser beam having a second cross section at a surface of the semiconductor layer wherein a length of said second cross section in said first direction is longer than that of said first cross section and a width of said second cross section in said second direction is smaller than that of said first cross section;
- moving said substrate along a third direction orthogonal to said first direction so that the semiconductor layer is scanned with the condensed laser beam and whereby the semiconductor layer is crystallized; and
- forming a plurality of thin film transistors using the crystallized semiconductor layer as at least channel regions of the thin film transistors,
- wherein both of the active matrix circuit and said driving circuit include said thin film transistors.

72. (Previously presented) The method according to claim 71 wherein said laser beam is an excimer laser beam.

73. (Withdrawn) The method according to claim 71 therein said ion blocking film comprises silicon oxide.

74. (Previously presented) The method according to claim 71 wherein said blocking film comprises silicon nitride.

75. (Withdrawn) The method according to claim 71 wherein said ion blocking film comprises non-doped silicon oxide.

76. (Previously presented) A method of manufacturing an active matrix display device having an active matrix circuit and a driving circuit, said method comprising:

forming an ion blocking film over a glass substrate containing alkali ions;

forming a semiconductor layer comprising amorphous silicon over said ion blocking film to a thickness of 200 - 1500 Å;

providing a first laser beam having a first cross section;

expanding said first cross section of the first pulsed laser beam in a first direction;

condensing the expanded laser beam in a second direction orthogonal to said first direction;

irradiating the semiconductor layer with the condensed laser beam having a second cross section at a surface of the semiconductor layer wherein a length of said second cross section in said first direction is longer than that of said first cross section and a width of said second cross section in said second direction is smaller than that of said first cross section;

moving said substrate along a third direction orthogonal to said first direction so that the semiconductor layer is scanned with the condensed laser beam and whereby the semiconductor layer is crystallized; and

forming a plurality of thin film transistors using the crystallized semiconductor layer as at least channel regions of the thin film transistors,

wherein both of the active matrix circuit and said driving circuit include said thin film transistors.

77. (Previously presented) The method according to claim 76 wherein said laser beam is an excimer laser beam.

78. (Withdrawn) The method according to claim 76 wherein said ion blocking film comprises silicon oxide.

79. (Previously presented) The method according to claim 76 wherein said blocking film comprises silicon nitride.

80. (Withdrawn) The method according to claim 76 wherein said ion blocking film comprises non-doped silicon oxide.

81. (Previously presented) A method of manufacturing an active matrix display device having an active matrix circuit and a driving circuit, said method comprising:

forming an ion blocking film over a glass substrate containing alkali ions to a thickness of 1000 - 4000 Å;

forming a semiconductor layer comprising amorphous silicon over said ion blocking film to a thickness of 200 - 1500 Å;

providing a first laser beam having a first cross section;

expanding said first cross section of the first pulsed laser beam in a first direction;

condensing the expanded laser beam in a second direction orthogonal to said first direction;

irradiating the semiconductor layer with the condensed laser beam having a second cross section at a surface of the semiconductor layer wherein a length of said second cross section in said first direction is longer than that of said first cross section and a width of said second cross section in said second direction is smaller than that of said first cross section;

moving said substrate along a third direction orthogonal to said first direction so that the semiconductor layer is scanned with the condensed laser beam and whereby the semiconductor layer is crystallized; and

forming a plurality of thin film transistors using the crystallized semiconductor layer as at least channel regions of the thin film transistors,

wherein both of the active matrix circuit and said driving circuit include said thin film transistors.

82. (Previously presented) The method according to claim 81 wherein said laser beam is an excimer laser beam.

83. (Withdrawn) The method according to claim 81 wherein said ion blocking film comprises silicon oxide.

84. (Previously presented) The method according to claim 81 wherein said blocking film comprises silicon nitride.

85. (Withdrawn) The method according to claim 81 wherein said ion blocking film comprises non-doped silicon oxide.

86. (Previously presented) A method of manufacturing an active matrix display device having an active matrix circuit and a driving circuit, said method comprising:
forming an ion blocking film over a glass substrate containing alkali ions;
forming a semiconductor layer comprising amorphous silicon over said ion blocking film to a thickness of 200 - 1500 Å;

providing a first laser beam having a first cross section wherein said laser beam is a pulsed laser beam having a wavelength of not longer than 400 nm;

expanding said first cross section of the first pulsed laser beam in a first direction;
condensing the expanded laser beam in a second direction orthogonal to said first direction;

irradiating the semiconductor layer with the condensed laser beam having a second cross section at a surface of the semiconductor layer wherein a length of said second cross section in said first direction is longer than that of said first cross section and a width of said second cross section in said second direction is smaller than that of said first cross section;

moving said substrate along a third direction orthogonal to said first direction so that the semiconductor layer is scanned with the condensed laser beam and whereby the semiconductor layer is crystallized; and

forming a plurality of thin film transistors using the crystallized semiconductor layer as at least channel regions of the thin film transistors,

wherein both of the active matrix circuit and said driving circuit include said thin film transistors.

87. (Previously presented) The method according to claim 86 wherein said laser beam is an excimer laser beam.

88. (Withdrawn) The method according to claim 86 wherein said ion blocking film comprises silicon oxide.

89. (Previously presented) The method according to claim 86 wherein said blocking film comprises silicon nitride.

90. (Withdrawn) The method according to claim 86 wherein said ion blocking film comprises non-doped silicon oxide.

91. (Previously presented) The method according to claim 61 further comprising a step of removing a peripheral portion of the expanded laser beam through a mask before the step of condensing the expanded laser beam wherein said peripheral portion includes at least edges of the expanded laser beam extending in said first direction.

92. (Previously presented) The method according to claim 66 further comprising a step of removing a peripheral portion of the expanded laser beam through a mask before the step of condensing the expanded laser beam wherein said peripheral portion includes at least edges of the expanded laser beam extending in said first direction.

93. (Previously presented) The method according to claim 71 further comprising a step of removing a peripheral portion of the expanded laser beam through a mask before the step of condensing the expanded laser beam wherein said peripheral portion includes at least edges of the expanded laser beam extending in said first direction.

94. (Previously presented) The method according to claim 76 further comprising a step of removing a peripheral portion of the expanded laser beam through a mask before the step of condensing the expanded laser beam wherein said peripheral portion includes at least edges of the expanded laser beam extending in said first direction.

95. (Previously presented) The method according to claim 81 further comprising a step of removing a peripheral portion of the expanded laser beam through a mask before the step of condensing the expanded laser beam wherein said peripheral portion includes at least edges of the expanded laser beam extending in said first direction.

96. (Previously presented) The method according to claim 86 further comprising a step of removing a peripheral portion of the expanded laser beam through a mask before the

step of condensing the expanded laser beam wherein said peripheral portion includes at least edges of the expanded laser beam extending in said first direction.

97. -100. (Cancelled)

101. (Withdrawn) The method according to claim 76 wherein said glass substrate is a soda-lime glass.

102. (Previously presented) The method according to claim 81 wherein said glass substrate is a soda-lime glass.

103. (Previously presented) The method according to claim 86 wherein said glass substrate is a soda-lime glass.

104. (Previously presented) The method according to claim 61 wherein said active matrix display device is a liquid crystal device.

105. (Previously presented) The method according to claim 66 wherein said active matrix display device is a liquid crystal device.

106. (Previously presented) The method according to claim 71 wherein said active matrix display device is a liquid crystal device.

107. (Previously presented) The method according to claim 76 wherein said active matrix display device is a liquid crystal device.

108 (Previously presented) The method according to claim 81 wherein said active matrix display device is a liquid crystal device.

109. (Previously presented) The method according to claim 86 wherein said active matrix display device is a liquid crystal device.

110. -130. (Cancelled)

131. (Previously presented) The method according to claim 61 wherein said laser beam is a pulsed laser beam and said substrate is moved in a stepwise manner.

132. -139. (Cancelled)

EVIDENCE APPENDIX

No evidence to be submitted.

RELATED PROCEEDINGS APPENDIX

No related proceedings to be submitted.